MOMOT, Ya. G.

Forced self-pollination in safflower. Uzb.biol.zhur. 6 no.6:33-37 '62. (MIRA 16:5)

1. Upravleniye okhrany lesov pri Sovete Ministrov UzSSR.
(UZBEKISTAN—SAFFLOWER) (FERTILIZATION OF PLANTS)

PHASE I BOOK EXPLOITATION 523

Momot, Yevgeniy Grigor'yevich [deceased]

Radiotekhnicheskiye izmereniya (Radio Engineering Measurements) Moscow-Leningrad, Gosenergoizdat, 1957. 364 p. 20,000 copies printed.

Ed.: Kazarnovskiy, D.M.; Tech. Ed.: Soboleva, Ye.M.; Reviewer: Dobrokhotov, B.A.

PURPOSE: The monograph is intended for students of radio engineering vuzes and faculties and also for engineers and scientists working in this field.

COVERAGE: The contents of the monograph correspond to the course on radio engineering measurements taught at the Leningradskiy institut aviatsionnogo priborostroyeniya (Leningrad Institute of Aviation Instrument Construction). The following measurements are discussed: d.c. and a.c. voltages, pulsating and pulse voltages, high frequency currents, high resistances, capacitances, induct-

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OBLOMOV, Aleksandr Fedorovich; TOKAREV, Lev Alekseyevich;
MOMOT, Yevgeniy Grigor'yevich; SHAMSHUR, V.I., red.

[Problems of the selectivity of radio receivers] Voprosy izbiratel'nosti radiopriemnikov. Moskva, Energiia, 1965. 102 p. (MIRA 18:2)

MOMOTOV, I. F.

Rastitel'nye komplekey Ust'-Urta [Ust-Urt vegetation complexes]. Tashkent, Izd-vo AN UzSSR, 1953. 136 p.

SO: Monthly List of the Russian Accessions, Vol. 6 No. 9 December 1953

MOMOTOV, I.F.

AKULOV, V.V., kand.geogr.nauk; BABUSHKIN, L.N., doktor geogr.nauk; ORESHINA, L.M.; SKVORTSOV, Yu.A., doktor geol.-mineral.nauk; PETROV, M.P., kand.geol.-mineral.nauk; CHERNOVSKIY, N.N.; KRYLOV, M.M., doktor geol.-mineral.nauk; KHASANOV, A.S.; BEDER, B.A., kand.geol.-mineral.nauk; KIMBERG, N.V., kand. sel'skokhoz.nauk; SUCHKOV, S.P.; GLAGOLEVA, A.F.; PERVU-SHINA-GROSHEVA, A.N.; VERNIK, R.S., kand.biol.nauk; MOMOTOV, I.F.; GRANITOV, I.I., kand.biol.nauk; SALIKHBAYEV, Kh.S., kand. biolog.nauk; STEPANOVA, N.A., kand.biolog.nauk; YAKHONTOV, V.V.; DAVLETSHINA, A.G., kand.biolog.nauk; MURATBEKOV, Ya.M., kand. biolog.nauk [deceased]; KUKLINA, T.Ye.; KORZHENEVSKIY, N.L., red. [deceased]; GORBUNOV, B.V., kand.geologo-mineral.nauk, red.; DONSKOY, P.V., red.; YAKOVENKO, Ye.P., red.izd-va; GOR'KOVAYA, Z.P., tekhn.red.

[Materials on the productive forces of Uzbekistan] Materialy po proizvoditel'nym silam Uzbekistana. Tashkent. No.10. [Natural conditions and resources of the lower reaches of Amu-Darya; Kara-Kalpak A.S.S.R. and Khorezm Province of the Uzbek S.S.R.] Prirodnye usloviia i resursy nizov'ev Amu-Dar'i; Kora-Kalpakskaia ASSR i Khorezmskaia oblast' UzSSR. 1959. 351 p. (MIRA 13:5)

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Sovet po izucheniyu proizvoditel'nykh sil. 2. Chleny-korrespondenty AN UzSSR (for Yakhontov, Korzhenevskiy).

(Amu-Darya Valley—Physical geography)

MOMOTOV, I.F.

Kysyl Kum Desert Station. Bot. zhur. 47 no.12:1858-1862 D '62.
(MIRA 16:6)

1. Institut botaniki AN Uzbekskoy SSR, Tashkent.
(Kyzyl Kum--Desert flora)

VERNIK, R.S.; MAYLUN, Z.A.; MOMOTOV, I.F.; GRANITOV, I.I., doktor biol. nauk; ~~prof., otv. red.~~; KOSHCHENKO, Z.V., red.

[Vegetation of the lower part of the Amu Darya River and its efficient use] Rastitel'nost' nizov'ev Amu-Dar'i i puti ee ratsional'nogo ispol'zovaniia. Tashkent, Izd-vo "Nauka" Uzbekskoi SSR, 1964. 210 p. (MIRA 18:1)

MOMOTOV, I.F.

Methods for determining the moisture in gypsum-bearing soils. Pochvovedenie no.9:72-76 S '65. (MIRA 18:10)

1. Institut botaniki AN UzbSSR.

MOROZENKO, [illegible].T. (Uryupinsk)

Let's strengthen the contact between school and life. Mat. v shkole no.5:3-5 S-O '61. (MIRA 14:10)

(Mathematics--Study and teaching)

MOMOTOVA, A., nauchnyy sotrudnik.

Forest city. IUn.nat. no 4:7-9 Ap '61. (MIRA 14:3)

1. Institut lesa Karel'skogo filiala AN SSSR, rukovoditel' kruzhka yunykh lesovodov.

(Palovodsk—Reforestation)

MOMOV, D.; SATIN, P.

3 cases of heart wounds. Khirurgiia, Sofia 14 no.5/6:507-511 '61.

1. Obedinena gradska bolnitsa, Gr. Varna. Gl. lekar Il. Chakalov.

(HEART wds & inj)

GERASIMOV, M.; KAISHEV, Kr.; IORDANOV, I.; BEKIAROVA, El.; MOMOV, Iv.; DOBREVSKI, Iv.; VULCHEV, D.

Physicochemical properties of petroleum of Dolni Dubnik, region of Pleven. Khim industriia 34 no.3:83-85 '62.

KRETOV, A.Ye.; MOISEENKO, A.P.

Reactions of cyanamide with organic acids. Izv.vys.ucheb.zav.; khim.i khim.tekh. 4 no.1:84-86 '61. (MIRA 14:6)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut, kafedra organicheskoy khimii.
(Cyanamide) (Acids, Organic)

KRETOV, A.Ye.; MOMSENKO, A.P.

Reactions of cyanamide with higher aliphatic acids. Zhur. ob. khim. 31 no.1:73-75 Ja '61. (MIRA 14:1)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.
(Cyanamide) (Acids, Fatty) (Amides)

KRETOV, A.Ye.; MOMSENKO, A.P.

Reactions of cyanamide with substituted aliphatic acids. Zhur.ob. khim. 31 no.6:2000-2003 Je '61. (MIRA 14:6)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.
(Cyanamide) (Acids, Fatty)

KRETOV, A.Ye.; MOMSENKO, A.P.

Mechanism of the reaction of cyanamide with monobasic acids of the aliphatic series. Zhur.ob.khim. 31 no.12:3916-3921 D '61. (MIRA 15:2)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.
(Cyanamide)
(Acids, Fatty)

KRETOV, L.Ye.; MOMSENKO, A.P.

Reactions of cyanamide with aliphatic acid anhydrides. Part 1.
Zhur.ob.khim. 33 no.2:397-399 F '63. (MIRA 16:2)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.
(Cyanamide) (Acids, Fatty) (Anhydrides)

KRETOV, A.Ye.; MOISENKO, A.P.

Reactions of cyanamide with aliphatic acid anhydrides. Zhur.ob. khim. 33 no.10:3325-3328 O '63. (MIRA 16:11)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.

BETANELI, I.D., kandidat tekhnicheskikh nauk; MONTSELIDZE, M.A., inzhener; KOMPANIONI, Zh.I., inzhener; CHOGOBADZE, G.I., inzhener; MOKBRISHVILI, I.M., inzhener; NEMSADZE, M.I., inzhener.

Use of belt conveyers for transporting concrete mixtures. Gidr.stroi. 22 no.8:1-5 Ag '53. (MLRA 6:8)

(Concrete--Transportation)

MONTSELIDZE, M. A.

ESTAMELI, I.D., kandidat tekhnicheskikh nauk; KOMPANIONI, Zh.I., inzhener; MGEBRISHVILI, I.M., inzhener; MONTSELIDZE, M.A., inzhener; NEMSADZE, M.I., inzhener; CHOGOVADZE, G.I., inzhener.

Standard prefabricated concrete plant with two S-158 concrete mixer. Elek. sta. 25 no.6:48-49 Je '54. (MIRA 7:7)
(Concrete) (Mixing machinery)

MOMTSELIDZE, M. A.

Bonding between gazha-portland cement mortar with brick and concrete. Trudy GPI [Gruz.] no. 4:111-121 '63. (MIRA 17:5)

MONTSELIDZE, N.R.

Approximation method for the determination of a correlation function. Soob. AN Gruz. SSR 34 no.2:419-423 My '64. (MIRA 18:2)

1. Tbilisskiy nauchno-issledovatel'skiy institut priborostroyeniya i sredstv avtomatizatsii. Submitted October 25, 1963.

GABASHVILI, N.V.; MKHTSELIDZE, N.R.

Problem in the automatic control of a nonlinear dynamic object. Soob. AN Gruz. SSR 39 no.1:145-149 Jl '65. (MIRA 18:10)

1. Gruzinskiy politekhnicheskiy institut imeni Lenina.
2. Chlen-korrespondent AN GruzSSR (for Gabashvili).

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E081/E135

AUTHORS: Monakhenko, D.V., and Proskuryakov, V.B. (Leningrad)

TITLE: Modelling the Stress State in Thin Sloping Shells

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1960, No. 6, pp. 161-163

TEXT: Thin inclined shells and plates are basic elements in a number of aircraft, ship and other constructions. In many cases these elements work with large deflections, and the stress state is governed by non-linear equations which complicate the solution of practical problems. In experimental investigations on models the parameters of the model which make the model and natural stress systems similar require to be known. When modelling thin shells and plates, the fulfilment of the requirements of geometric similarity are practically impossible since they lead to very small thicknesses in the models; moreover the investigations are usually conducted on materials with Poisson's ratios differing from those in nature (organic glass, bakelite, epoxy resins, etc). The present paper describes a method of modelling thin sloping

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shells assuming geometrical affinity, and in some cases a difference between the Poisson's ratios in the model and in nature. In the usual notation the equations of a thin shell with large deflections are written as:

$$\frac{D}{h}\nabla^2\nabla^2 w = \frac{\partial^2 w}{\partial x^2}\frac{\partial^2 \Phi}{\partial y^2} + \frac{\partial^2 w}{\partial y^2}\frac{\partial^2 \Phi}{\partial x^2} - 2\frac{\partial^2 w}{\partial x \partial y}\frac{\partial^2 \Phi}{\partial x \partial y} + k_x\frac{\partial^2 \Phi}{\partial y^2} + k_y\frac{\partial^2 \Phi}{\partial x^2} + \frac{q}{h} \quad (1.1)$$

$$\frac{1}{E}\nabla^2\nabla^2 \Phi = \left(\frac{\partial^2 w}{\partial x \partial y}\right)^2 - \frac{\partial^2 w}{\partial x^2}\frac{\partial^2 w}{\partial y^2} - k_x\frac{\partial^2 w}{\partial y^2} - k_y\frac{\partial^2 w}{\partial x^2} \qquad (1.1)$$

and the conditions of similarity for the stress function and the deflection are then found as:

$$\frac{c_p c_\ell^2}{c_\Phi c_h c_w} = 1, \quad \frac{c_\nu c_\Phi}{c_E c_h^2} = 1, \quad \frac{c_w}{c_k c_\ell^2} = 1, \quad \frac{c_\Phi}{c_E c_w^2} = 1 \qquad (1.2)$$

where $c_x = c_y = c_\ell$, $c_{kx} = c_{ky} = c_k$, $c_\nu = (1 - \mu_H^2/1 - \mu_M^2)$

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and the boundary conditions lead to the further condition

$$c_{\mu} = 1. \tag{1.3}$$

It is known that the stress (Π) and strain (T) tensors for a shell can be written as the sum of a chain and a bending tensor as:

$$\Pi = \Pi_{ц} + \Pi_{и} = \begin{vmatrix} \frac{\partial^2 \Phi}{\partial y^2} & -\frac{\partial^2 \Phi}{\partial x \partial y} \\ \cdot & \frac{\partial^2 \Phi}{\partial x^2} \end{vmatrix} + \begin{vmatrix} -\frac{Ez}{1-\mu^2}\left(\frac{\partial^2 w}{\partial x^2} + \mu \frac{\partial^2 w}{\partial y^2}\right) & -\frac{Ez}{1+\mu}\frac{\partial^2 w}{\partial x \partial y} \\ \cdot & -\frac{Ez}{1-\mu^2}\left(\frac{\partial^2 w}{\partial y^2} + \mu \frac{\partial^2 w}{\partial x^2}\right) \end{vmatrix} \tag{2.1}$$

$$T = T_{ц} + T_{и} = \begin{vmatrix} \frac{1}{E}\left(\frac{\partial^2 \Phi}{\partial y^2} - \mu \frac{\partial^2 \Phi}{\partial x^2}\right) & -\frac{1+\mu}{E}\frac{\partial^2 \Phi}{\partial x \partial y} \\ \cdot \quad \cdot & \frac{1}{E}\left(\frac{\partial^2 \Phi}{\partial x^2} - \mu \frac{\partial^2 \Phi}{\partial y^2}\right) \end{vmatrix} + \begin{vmatrix} -z\frac{\partial^2 w}{\partial x^2} & -z\frac{\partial^2 w}{\partial x \partial y} \\ \cdot & -z\frac{\partial^2 w}{\partial y^2} \end{vmatrix} \tag{2.2}$$

From these equations the similarity conditions for the stress and strain tensors are given by Eqs.(2.3), (2.4), and (2.5) for the

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complete tensors, the chain tensors and the bending tensors respectively:

$$c_\mu = 1, \quad \frac{c_\Phi}{c_E c_h c_w} = 1, \quad \frac{c_h c_w}{c_l^3 c_\varepsilon} = 1 \quad \left(\begin{matrix}\text{для полных}\\ \text{деформаций}\end{matrix}\right) \qquad (2.3) \qquad (2.3)$$

$$c_\mu = 1, \quad \frac{c_\Phi}{c_E c_h c_w} = 1 \quad \frac{c_E c_h c_w}{c_l^3 c_\varepsilon} = 1 \quad \left(\begin{matrix}\text{для полных}\\ \text{напряжений}\end{matrix}\right)$$

$$c_\mu = 1, \quad \frac{c_\Phi}{c_E c_l^3 c_{\varepsilon \text{ц}}} = 1, \quad \left(\begin{matrix}\text{для цепных}\\ \text{деформаций}\end{matrix}\right), \quad \frac{c_\Phi}{c_l^3 c_{\varepsilon \text{ц}}} = 1 \quad \left(\begin{matrix}\text{для цепных}\\ \text{напряжений}\end{matrix}\right) \quad (2.4) \qquad (2.4)$$

$$\frac{c_h c_w}{c_l^3 c_{\varepsilon \text{и}}} = 1 \quad \left(\begin{matrix}\text{для изгибных}\\ \text{деформаций}\end{matrix}\right), \quad c_\mu = 1, \quad \frac{c_E c_h c_w}{c_l^3 c_{\varepsilon \text{и}}} = 1 \quad \left(\begin{matrix}\text{для изгибных}\\ \text{напряжений}\end{matrix}\right) \quad (2.5) \qquad (2.5)$$

The equations $\quad \sigma_H \leqslant \sigma_{H.lim} \qquad (3.1)$

and $\quad \sigma_M \leqslant \sigma_{M.lim} \qquad (3.2)$

express the conditions that the stresses (strains) in nature and in the model respectively do not exceed the proportional limits of the material, and (3.2) is found to be satisfied if the inequality

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$$\frac{c_{\sigma\,\lim}}{c_\sigma} \leqslant 1 \qquad (3.3)$$

holds. From Eqs.(1.2), (1.3), (2.3) and (3.3) the conditions of similarity for the complete stress (strain) tensors are given by:

$$\frac{c_w}{c_h} = 1, \quad \frac{c_h}{c_k c_l^2} = 1, \quad c_\mu = 1, \quad \frac{c_p c_l^2}{c_Q c_h^2} = 1$$
$$\frac{c_\Phi}{c_E c_h^2} = 1, \quad \frac{c_\Phi}{c_l^2 c_\sigma} = 1, \quad \frac{c_\sigma}{c_E c_\varepsilon} = 1, \quad \frac{c_{\sigma\,\lim}}{c_\sigma} < 1 \qquad (4.1)$$

where c_p is the coefficient of similarity of the external loading. This system consists of 7 equations and 1 inequality connecting 11 similarity coefficients, and three coefficients are therefore arbitrary. Assuming similarity between bending strains and chain stresses, we obtain:

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$$\frac{c_\nu^{1/2} c_w}{c_h} = 1, \quad \frac{c_h}{c_\nu^{1/2} c_L c_l^{2}} = 1, \quad \frac{c_\nu^{1/2} c_p c_l^{2}}{c_\Phi c_h^{2}} = 1$$

$$\frac{c_\nu c_\Phi}{c_E c_h^{2}} = 1, \quad \frac{c_{\varepsilon} c_l^{2}}{c_l^{2} c_{\varepsilon II}} = 1, \quad \frac{c_h c_w}{c_l^{2} c_{\varepsilon K}} = 1 \qquad (5.1) \qquad (5.1)$$

consisting of 6 equations connecting 10 coefficients, 4 of which are therefore arbitrary. This similarity is such that the Poisson's ratios of the model and the natural material may be different, and the requirement of geometric similarity is absent. If the deflections of the shell are small,

$$w \leqslant \alpha h \qquad (\alpha = 1/5 \div 1/2) \qquad (6.1)$$

the similarity indices (1.2) can be replaced by those obtained on linearising Eqs.(1.1). The limiting condition

$$c_h/c_w \leqslant 1 \qquad (6.2)$$

guaranteeing fulfilment of (6.1) must be obeyed.

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If in Eqs.(1.1) $k_x = k_y = 0$, the similarity conditions for plates are obtained as a special case.

There are 4 Soviet references.

SUBMITTED: September 5, 1960

X

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MONAKHENKO, D.V.; PROSKURYAKOV, V.B. (Leningrad)

Modeling the stressed state of frames made of thin rods of wrinkled profile. Stroi.mekh. i rasch.soor. 6 no.3:3-6 '64. (MIRA 18:1)

MONAKHENKO, D.V.

Plastics as materials for models. Zav.lab. 31 no.10:1251-1253 '65. (MIRA 19:1)

GORSHKOV, V.; RUBAN, T.; MONAKHOV, A.; KALIKINSKIY, V.; KAPRALOV, M.

New machines in operation. Den. i kred. 21 no.3:51-57 Mr '63.
(MIRA 16:3)

1. Glavnyy bukhgalter Belgorodskoy oblastnoy kontory Gosbanka (for Gorshkov). 2. Starshiy inspektor glavnoy bukhgalterii Belgorodskoy oblastnoy kontory Gosbanka (for Ruban). 3. Starshiy ekonomist glavnoy bukhgalterii Kalininskoy oblastnoy kontory Gosbanka (for Monakhov). 4. Glavnyy bukhgalter upravleniya filialami Gosbanka TSelinogradskoy oblasti (for Kalikinskiy). 5. Starshiy mekhanik Tul'skoy oblastnoy kontory Gosbanka (for Kapralov).

(Banks and banking—Accounting) (Machine accounting)

MONAKHOV, A.N.

Using quick-drying mixtures for molds. Av.prom. 26 no.8:75 Ag '57. (MIRA 15:4)

(Sand, Foundry)

MONAKHOV, A. N. (Eng.)

XIX. "Overall Mechanization of Wiring Operations During the Assembly of Electric Instruments and Units," Automation and Mechanization of Production Processes in Instrument Manufacturing, Moscow, Mashgiz, 1958. 591 p.

PURPOSE: This book is intended for engineers, technicians, and scientific personnel, concerned with mechanization and automation of production processes in instrument manufacturing, and for students and teachers of this subject in vuzes.

AKULINICHEV, I.T.; ANDREYEV, L.F.; BAYEVSKIY, R.M.; BAYKOV, A.Ye.: BUYLOV, G.G.
GAZENKO, O.G.; GRYUNTAL', R.G.; ZAZYKIN, K.P.; KLIMENTOV, Yu.F.;
MAKSIMOV, D.G.; MERKUSHKIN, Yu.G.; MONAKHOV, A.V.; PETROV, A.P.;
RYABCHENKOV, A.D.; SAZONOV, N.P.; UTYAMISHEV, R.I.; FREYDEL', V.R.;
KHIL'KEVICH, B.G.; SHADRINTSEV, I.S.; SHEVANDINA, S.B.; ESAULOV,
N.G.; YAZDOVSKIY, V.I.

Method and means of medical and biological studies in a space
flight. Probl. kosm. biol. 3:130-144 '64. (MIRA 17:6)

L 03179-67

ACC NR: AP6033118 SOURCE CODE: UR/0239/66/052/010/1273/1275

AUTHOR: Bayevskiy, R. M. (Moscow); Ivanov, V. A. (Moscow); ~~Monakhov, A. V. (Moscow)~~; Freydel', V. R. (Moscow)

ORG: none

42
B

TITLE: The pneumocardiophone 4V

SOURCE: Fiziologicheskiy zhurnal SSSR, v. 52, no. 10, 1966, 1273-1275

TOPIC TAGS: human physiology, respiratory physiology, circulatory physiology, medical equipment, pulse rate, respiration rate, biotelemetry, pneumocardiography, PHYSIOLOGIC PARAMETER, BIOLOGIC RESPIRATION, PHONOCARDIOGRAPHY

ABSTRACT: A simple system for continuously monitoring pulse and respiration rates over long periods of time is described. A record can be made with any single-channel recorder; the output can also be connected with an amplifier-speaker system or displayed on an oscillograph. Signals from a respiration sensor in which make-and-break is accomplished by expansion and contraction of the rib cage, and cardiac biocurrents, are used as input signals. Silver electrodes 18—20 mm in diameter are held over the fifth intercostal space along the medial axillary line by an elastic harness to which the respiration sensor is also attached (see Fig. 1). The basic idea of the system is the single-channel recording of two parameters. This is done by shaping cardiac biopotentials corresponding to the R rhythm into square pulses whose duration or amplitude is determined by the respiration sensor. Respira-

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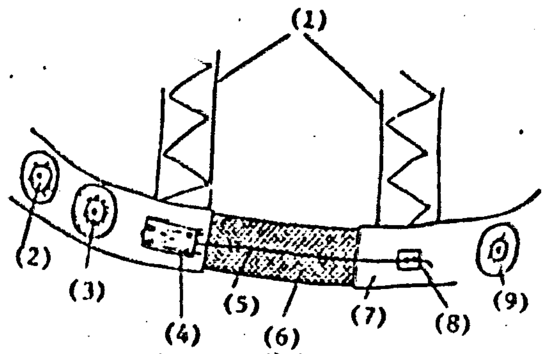

Fig. 1. Harness for pneumocardiophone

1 - Shoulder straps; 2 - electrode; 3 - neutral electrode; 4 - respiration sensor; 5 - anchor cord; 6 - elastic insert; 7 - web belt; 8 - cord anchor; 9 - electrode.

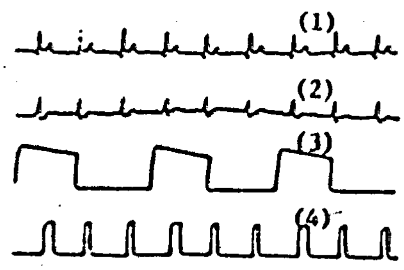

Fig. 2. EKG, PG, and PKG traces compared.

tion signals are thus read from the duration or amplitude of the pulse signals. In the pulse duration modulation setup, the R-wave peak is formed into a square pulse

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lasting 100—150 msec during exhalation (contact closed) and 200—300 msec during inhalation (contact open). These pulses can also be used to generate an acoustic signal. Fig. 2 shows EKG (1 and 2) and pneumogram (3) traces, and a simultaneously recorded pneumocardiophone (4) trace. Orig. art. has: 3 figures.

SUB CODE: 06/ SUBM DATE: 10Apr65/ ORIG REF: 003/ ATD PRESS: 5099

Card 3/3 LC

ALEKSANDROV, A.Ya., professor, doktor tekhnicheskikh nauk;
MONAKHOV, B.F., inzhener; KLYACHKO, S.D., student;
PRESNIKOV, V.Ya., student

Investigation of plane contact problems for soils by means of photoelasticity. Trudy NIIZHT no.11:89-101 '55. (MLRA 9:10)

(Photoelasticity) (Soil mechanics)

AL'BREKHT, V.G., prof. (Novosibirsk); RYAZANOV, A.N., inzh. (Novosibirsk); MONAKHOV, B.F., inzh. (Novosibirsk)

What should be the speed of train traffic during the period of track overhauling. Put' i put.khoz. 6 no.6:19-20 '62. (MIRA 15:7)
(Railroads--Maintenance and repair)
(Railroads--Train speed)

MONAKHOV, B.F., inzh.

Creep forces developing during the passage of six- and eight-axle cars. Trudy NIIZHT no.31:173-183 '62. (MIRA 16:9)
(Railroads—Track)

AL'BREKHT, V.G., prof., doktor tekhn.nauk; RYAZANOV, A.N., inzh.; MAKAROV, B.F., inzh.

Permissible train speeds in areas of track overhauling. Trudy MIIZHT no.31:44-64 '62. (MIRA 16:9)
(Railroads--Train speed) (Railroads--Maintenance and repair)

MONAKHOV, B.K., inzh.

Methodology for determining the magnitude of the linear resistance of rails to displacement on the ties during train passage. Trudy NIIZHT no.31:222-229 '62.

Static design of rails for vertical load taking the horizontal forces of friction into account. 223-244 (MIRA 16:9)

AL'BREKHT, V.G., prof. (Novosibirsk); KARPUSHCHENKO, N.I., inzh. (Novosibirsk); Menakhov, B.F., inzh. (Novosibirsk)

Creeping forces during the passage of six-axle gondola cars. Put' i put. khoz. 8 no.9:36-38 '64. (MIRA 17:11)

MONAKHOV, B.S., aspirant

Working conditions and the state of health in workers of the Kursk Plant of Tractor Spare Parts. Sbor. trud. Kursk. gos. med. inst. no.16:52-57 '62. (MIRA 17:9)

1. Iz kafedry organizatsii zdravookhraneniya (zav. - dotsent A.G. Kurochkina) Kurskogo gosudarstvennogo meditsinskogo instituta.

MONAKHOV, B.V.

Effect of a liquid extract from the roots of Eleutherococcus on the toxicity and antineoplastic activity of cyclophosphane. (MIRA 19:1)
Vop. onk. 11 no.12:60-63 '65.

1. Iz laboratorii lekarstvennyykh metodov profilaktiki i lecheniya zlokachestvennykh novoobrazovaniy (zav. - zasluzhennyy deyatel' nauki RSFSR prof. N.V. Lazarev) Instituta onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR zasluzhennyy deyatel' nauki RSFSR prof. A.I. Serebrov).

MONAKHOV, F. I.

"Investigation of Certain Problems of the Polarization of Transversal Seismic Waves." Thesis for degree of Cand. Physico-Mathematical Sci. Sub 7 Jun 50, Geophysics Inst. Acad Sci USSR.

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

USSR/Geophysics - Seismology
Transverse Waves

Nov/Dec 50

"Some Problems in the Polarization of Transverse Seismic Waves," F. I. Mokhanov, Geophys Inst, Acad Sci USSR

"Iz Ak Nauk SSSR, Ser Geograf i Geofiz" Vol XIV, No 6, pp 501-514

Analyzes observations on direction of oscillations in transverse seismic waves. Disproves contention advanced by B. B. Golitsyn long ago that the earth's nonhomogeneity greatly affects direction of oscillations in transverse waves and thus causes diverse

[redacted] 171T64

USSR/Geophysics - Seismology (Contd) Nov/Dec 50

directions observed in soil movements. Submitted by Acad O. Yu. Shmidt 18 Jul 50.

[redacted] 171T64

MONAKHOV, F. I.
~~MOKHANOV, F. I.~~

PA 233T86

MONAKHOV, F. I.

USSR/Geophysics - Earthquakes 1950

"Interpretation of Observations of Close Deep-Focus Earthquakes," F. I. Monakhov

"Trudy Geofiz Inst" No 9 (136), pp 43-57

Calculates travel time and epicentral distances of direct and secondary waves from deep-focus earthquakes for a given depth of focus and given structure of the earth's crust. Evaluates displacement at earth's surface, due to secondary waves, with respect to displacement from incident direct waves.

233T86

PA 233T87

MONAKHO, F. I.

1950

USSR/Geophysics - Earthquakes

"Determining the Direction of Displacement in a Transverse Wave," F. I. Monakhov

"Trudy Geofiz Inst" No 9 (136), pp 58-66

Considers the problem of detg the direction of displacement in a transverse wave at the moment of its impact with the earth's surface and evaluates its accuracy. Investigates the position of the displacement vector in a transverse wave when it crosses the boundary of sepn.

233T87

MONAKHOV, F. I.

USSR/Geophysics - Earthquakes Mar/Apr 52

"Some Results of Analysis of Earthquakes in Garm Oblast," F.I. Monakhov, Geophys Inst, Acad Sci USSR

"Iz Ak Nauk SSSR, Ser Geofiz" No 2, pp 46-55

Analyzes problem of detn of earthquake seat according to observations of seismic stations at epicentral distances of 100-800 km. Investigated are earthquakes of Garm Oblast, Tadzhik SSR, which occurred in 1949-1950. It is demonstrated that only the layer in which the seat lies can be positively detd. Received 3 July 51.

216T79

MONAKHOV, F. I.

USSR/Geophysics - Afghanistan Earthquakes 1952

"Characteristics of Afghan Deep-Focus Earthquakes," F. I. Monakhov

"Trudy Geofiz Inst, Ak Nauk SSSR" No 14 (141), pp 3-12

Presents results of a detn of the depth at which foci of certain Afghan earthquakes lie, and of the intensity of the forces acting in the foci. In addn, gives data on the presence of double shocks in the foci of the investigated earthquakes. Concludes that a genetic connection exists between deep plutonic movements and surface movements. Editor is G. A. Gamburtsev, Corr Mem, Acad Sci USSR

230T63

FD-2767

USSR/Geophysics - Earthquakes

Card 1/2 Pub. 45 - 1/13

Author : Monakhov, F. I.; Tarakanov, R. Z.

Title : Characteristics of the Kurile-Kamchatka earthquakes according to observations of nearby stations for the years 1952-1954

Periodical : Izv. AN SSSR, Ser. geofiz., Sep-Oct 1955, 401-415

Abstract : The authors describe maps of the epicenters of the Kurile-Kamchatka earthquakes for the period 1952-1954 according to observations of the far east network of seismic stations and discuss the plutonic occurrence of centers east of Kamchatka and the Kurile Islands. They conclude that the Kurile-Kamchatka zone is tectonically divided into individual blocks whose seismic activity does not appear at the same time and that in 1952-1954 a considerable release of seismic energy occurred east of the north Kurile Islands and in the southern part of Kamchatka and region of Hokkaido Island. The region of the Kurile-Kamchatka earthquake manifestations is bounded on the Pacific Ocean side of the Kurile Deep-water Depression. The centers of the earthquakes east of Kamchatka and Kurile Islands are mainly at a depth of about 60 kilometers, and the depths of the centers increase in the direction

FD-2767

Card 2/2

Abstract : toward the continent. Seven references: e.g. N. A Linden, "Catalog of deep-focus earthquakes according to data of the network of USSR seismic stations," Trudy Seysmologicheskogo in-ta AN SSSR, No 124, 1947.

Institution : Sakhalin Affiliate, Academy of Sciences USSR

Submitted : December 16, 1954

MONAKHOV, F.I.

MONAKHOV, F.I., kandidat fiziko-matematicheskikh nauk

Microseismic method of tracking ocean storms. Vest.AN SSSR 25 no.9:41-45 S '55. (MLRA 8:12)
(Storms) (Microseisms)

MONAKHOV, F.I., Candidate of Physicomathematical Sciences

"Study of microseisms in the USSR", a paper given at the 50th Anniversary Session of the Seismic Station "Pulkovo", 25-29 Sep 1956, Leningrad.

SUM. I322

MONAKHOV, F.I.; BARYSHNIKOV, V.B.

Concerning sources of microseismic fluctuations. Meteor.i gidrol. no.4:31-34 Ap '56. (MLRA 9:8)

(Microseisms)

MONAKHOV, F I

MONAKHOV, F.I.

Characteristics of sources of storm microseisms. Izv.AN SSSR.Ser.geofiz. no.6:634-643 Je '56. (MLRA 9:9)

1.Akademiya nauk SSSR, Geofizicheskiy institut.
(Microseisms) (Typhoons)

MONAKHOV, F. I.

AUTHOR: Monakhov, F. I. 60-36-2/10

TITLE: Emergence Angles of Longitudinal Seismic Waves in the Yuzhno-Sakhalinsk Area (Ugly vykhoda prodol'nykh seysmicheskikh voln v rayone Yuzhno-Sakhalinska)

PERIODICAL: Trudy Geofizicheskogo instituta, AN SSSR, 1956, Nr 36, pp. 15-24 (USSR)

ABSTRACT: The results of experimental observations made by the Yuzhno-Sakhalinsk seismic station on emergence angles of longitudinal seismic waves in the area of Yuzhno-Sakhalinsk are reported and discussed. By comparing the angles of emergence, the inclination of the controlling boundaries in the earth's crust may be established. The author was aided in his work by V. N. Bichevina. Observations at the stations were made with D. P. Kirnos' seismographs. There are 5 figures and 6 tables.

AVAILABLE: Library of Congress

Card 1/1

MONAKHOV, F. I.

BALAKINA, L. M.

3(10)

PHASE I BOOK EXPLOITATION SOV/1669

Akademiya nauk SSSR. Komitet po geodezii i geofizike.

Tezisy dokladov na XI General'noy assambleye Mezhdunarodnogo geodezicheskogo i geofizicheskogo soyuza. Mezhdunarodnaya assotsiatsiya seysmologii i fiziki nedr zemli (Abstracts of Reports Submitted to the XI General Assembly of the International Union of Geodesy and Geophysics. The International Association of Seismology and Physics of the Earth's Interior) Moscow, 1957. 108 p. [Parallel texts in Russian and English] 1,500 copies printed.

No additional contributors mentioned.

PURPOSE: This booklet is intended for geophysicists, especially those specializing in seismology.

COVERAGE: This collection of articles deals with the structure and composition of the Earth and phenomena related thereto. The majority of the articles concern studies of earthquakes and seismic waves. Other articles cover the structure of the Earth's crust and mountain roots; the elastic properties of rocks at high pressures; the piezoelectric effect of rocks and the method of modelling in tectonophysics. The collection also contains articles on the Earth's thermal history, the microseismic method of tracing storms and others.

Card 1/5

Kondorskaya, N.V. Travel Times and Some Dynamic Characteristics of Seismic Waves

Lyubimova, Ye.A. The Earth's Thermal History and Its Geophysical Consequences 58

Medvedev, S.V., and V.A. Petrushevskiy. Methods and Experience in Zoning USSR Territory According to Seismic Intensity 63

Magnitskiy, V.A. Properties of the Earth's Mantle and the Physical Nature of the Intermediate Layer (Layer C) 66

Monakhov, F.I. Development of the Microseismic Method of Tracing Storms at Sea 70

Rykunov, L.N. Study of the Character of Decrease of P-Wave Amplitudes in the Shadow Zone on a Model 75

Solov'yev, S.L. The Energy and Intensity of Earthquakes 78

Savarenskiy, Ye.F. Results of Seismic Studies in the USSR 81

MONAKHOV, F.I.

Microseism studies in the U.S.S.R. Biul. Sov. po seism. no.6:139-145 '57.
(KIRA 11:3)

1. Institut fiziki Zemli Akademii nauk SSSR, Moskva.
(Microseisms)

Monakhov, F. I.

AUTHORS: Stolypina, N. V., Monakhov, F. I. 50-2-5/22

TITLE: Synoptic Conditions of the Excitation of Microseismicity in the Black Sea (Sinopticheskiye usloviya vozbuzhdeniye mikroseysm v Chernom more).

PERIODICAL: Meteorologiya i Gidrologiya, 1958, Nr 2, pp. 27-30 (USSR)

ABSTRACT: At present the microseismic method of the investigation of storms at sea is introduced in the hydrometeorological service. The success of the practical application of this method depends to a great extent on the knowledge of the conditions of the excitation of microseismicity.
In spite of numerous investigations carried out in this field several basic problems have not yet been investigated. However, there is no doubt that the intensification of microseismic commotions of the ground with a duration of 1-10 sec. is connected with the passing of cyclones above seas and oceans. However, problems concerning the location of the excitation area of microseismicity in relation to the centre of the cyclone and the front, the transformation of wind energy into energy of elastic oscillations of the terrestrial crust, the synoptic conditions of microseismic

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Synoptic Conditions of the Excitation of Microseismicity 50-2-5/22
in the Black Sea

phenomena etc. are still open questions.
In the present paper some results of the analysis of microseismicity observed on the Crimea in connection with synoptic conditions are given. The commotions of the ground which were recorded by the seismic observatory of Yalta in 1952 were studied. In 1952 electrodynamic seismographs were installed in Yalta by Kirnos which magnified periods of 1-10 seconds in the diapason by 1200 times. This apparatus was sensitive to terrestrial oscillations of near sources of short periods as well as to oscillations of distant sources of long periods.
In the course of the investigation the mean values of the amplitude and of the periods of dominating connections of the ground were recorded on a graph for 4 periods of 24 hours each.
On the same graph and for the same periods the data on cyclones occurring above the Black Sea and the Atlantic Ocean were registered. The latter were regarded as most probable sources of commotious of the ground on the Crimea.
Card 2/4 The analysis of these graphs showed that the period of

Synoptic Conditions of the Excitation of Microseismicity 50-2-5/22
in the Black Sea

terrestrial oscillations in Yalta fluctuates between 2-8 sec and that the maximum amplitudes change from 0,2 - 10μ. With the intensification of microseismic oscillations in Yalta always cyclones or fronts passed simultaneously above the Black Sea or the Atlantic; on this occasion the microseismicity was well correlated with periods of less than 4 seconds with cyclones and fronts above the Black Sea. The terrestrial oscillations of a period of more than 4-5 seconds usually were observed at the time of action of deep cyclones above the North Atlantic. On fig.1 the average monthly amplitudes of terrestrial oscillations of a period of less than 4 sec were compared to the date of each month when cyclone or front centres passed over the Black Sea. On fig. 2 the date is graphically represented when cyclones passed over the Atlantic and terrestrial oscillations of a period of more than 5 sec were observed in Yalta. In both cases a sufficient agreement of the shapes of the curves was observed which indicates to two main fields of the excitation of oscillations observed on the Crimea as well as to their connection with the action of cyclones above the water

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Synoptic Conditions of the Excitation of Microseismicity 50-2-5/22
in the Black Sea

surface. The microseismic terrestrial oscillations take place on the occasion of a passing of various fronts above the surface of the sea. The strongest commotions of ground take place on the occasion of a passing of cold fronts. There are 3 figures, and 5 references, 2 of which are Slavic.

AVAILABLE: Library of Congress

Card 4/4

SOV/49-58-8-1/17

AUTHORS: Monakhov, F.I. and Dolbilkina, N.A.

TITLE: The Structure of Microseisms (Struktura mikroseysm)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 8, pp 937 - 945 (USSR)

ABSTRACT: The majority of the work in this subject has been restricted to the two-dimensional case, i.e. oscillations only in the horizontal plane. Assuming that microseisms consist mainly of Rayleigh waves, the oscillations in the horizontal plane are mainly elliptical, with the major axis in the direction of the source. Båth (Ref 1) was, however, correct in saying that the nature of microseisms could not be entirely explained from traces taken in one plane. Still, many interesting results have been obtained from this approximation, e.g. the dominance of Rayleigh waves (Refs 1-9) - the presence of Love waves in microseisms has been affirmed (Refs 3,5) and denied (Ref 7) (It has been suggested that the Love waves arise from the Rayleigh waves en route from the source). The traces have also been used to determine the sources of the microseisms (with no very great accuracy). These have been found to coincide with the centres or cold fronts of cyclones.

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The present article contains some results from analysis of microseismic oscillations.
The normal, observational methods used are either insufficiently accurate or else require too complicated an analysis. In 1952, G.A. Gamburtsev (Ref 10) suggested a method based on the phase correlation and amplitude characteristics of waves recorded by a group of seismographs, of which the axis of maximum sensitivity was inclined to the horizontal at a given angle. This method was developed by Ye.I. Gal'perin and used by the authors.
Measurements were carried out in Yalta from Autumn, 1956 to Spring, 1957. The apparatus consisted of eight vertical seismographs, inclined at 45° to the horizontal and positioned through 45° in azimuth. Another seismograph was placed with the axis of maximum sensitivity vertical. Seismographs of type VEGIK and galvanometers of type M-21/5 were used; the instrumental constants being $T_o = 3$ sec, $D_o = 1.5$, $T_1 = 6.7$ sec, $D_1 = 0.5$.

In this method, considerable attention has to be paid to errors connected with the determination of phase changes. To reduce these errors as much as possible, strict control must be kept on the instrumental parameters - in this case, during the whole period, the amount never exceeded 0.1 sec. Considering the method in more detail, the co-phasal axis of the Rayleigh waves is given by:

$$\tan \beta = \frac{B_o}{A_o} \cot \phi \cos \omega \qquad (1)$$

where β is the maximum phase displacement in the channels; B_o and A_o are the minor and major axes of the ellipse; ϕ is the angle of inclination of the seismograph axes to the horizontal; ω is the azimuth of the axes. Putting $A_o = 0$, the equivalent equation for Love waves is obtained (2). Eqs.(3) and (4) give the dependence of amplitude on seismograph azimuth for Rayleigh and Love waves, respectively. The amplitudes of Rayleigh waves vary between $A_o \sin\phi$ and

$$\sqrt{A_0^2 \sin^2\phi + B_0^2 \cos^2\phi}$$

and the amplitudes of Love waves vary from zero to $B\cos\phi$. Figure 1 shows a microseismogram for an azimuthal layout, with the co-phasal axis for the Rayleigh waves drawn in. The optimum number of seismographs in this type of arrangement depends on the accuracy of measurement of the phase changes and on the periods of the waves registered. With an error of 0.1 sec and a microseism period of 5 sec., Eq.(1) gives a maximum change in ω of 45°. Thus, at Yalta, eight seismographs were used.
The position of the vibration plane for Rayleigh waves can be determined either by the maximum phase change or by the method of intersection of equi-phase planes suggested by Ye.I. Gal'perin. In the first case, the error was ± 22.5° and in the second case, somewhat less.
The true Rayleigh waves discussed above (ellipses in a plane perpendicular to the horizon) are rarely met in microseisms - the plane usually being inclined at some angle

to the horizon. The method of equi-phase plane intersection can still be used here to give the position of the vibration plane. Although the oscillation directions of the particles can be obtained immediately from the traces of the azimuth apparatus, the actual position of the microseismic source cannot be obtained directly from these. In order to find the true direction of propagation, some reliable, independent means must be used. The most reliable method available at present is positional-phase correlation in which the moment at which a particular phase of the microseismic waves passes three, or more, points is recorded. In the layout at Yalta, the distance between the three points was ~ 1 500 m and the accuracy of the measurements on propagation direction was ± 15°.

The authors also studied the horizontal motion of particles in microseisms with the vector apparatus shown in Figure 2. This consisted basically of galvanometers connected to two horizontal seismographs oriented N-S and E-W. All types of observations were made two or four times a day for a time of 20 minutes, during gales.

The source of microseisms in the Crimea is mainly storms in the Black Sea and the North Atlantic (Ref 12); the former being of shorter period. In considering microseismic structure, the authors consider these two areas separately.

The discussion of results from the North Atlantic is based on nine microseismic records. Only Rayleigh waves are considered, since Love waves were almost entirely absent. Rayleigh waves are considered to be those oscillations which form ellipses or areas of some type in a plane making an angle of 0-45° with the vertical. In this sense, Rayleigh waves made up 13% of the total recorded (variations were from 7-27%), the rest, perhaps, being the result of interference between Rayleigh waves. Since Rayleigh waves are present and Love waves absent, the source must act in a direction perpendicular to the Earth surface. Hence, the idea that these microseisms are due to impulses received by the Scandinavian coastal elevations is contradicted.

The continuous line in Figure 3 represents the azimuths of the polarisation planes for the Rayleigh waves; the dotted line represents the azimuths of microseismic source directions (obtained from the observed phase changes). It can be seen that, generally, the plane of oscillation for Rayleigh waves is oriented in the direction of the microseismic source.

Figure 4 shows the inclinations of the oscillation planes for Rayleigh waves (ϕ) plotted against the number of observed cases. This has a maximum for $\phi = 20 - 30^{\circ}$. It can be seen that in the majority of cases, the plane of oscillation makes an acute angle with the horizon. This would be explicable as due to interference of waves if the Atlantic microseisms differed in direction of propagation at Yalta by not less than 45° and interfered with a phase difference $\sim\pi/2$. However, the measurements made indicate that these values are incorrect.

Figure 5 shows the observed inclinations of planes of oscillation as a function of the direction from which the microseisms arise. Thus, if the direction of propagation varies in azimuth from $270 - 340^{\circ}$, the plane of oscillation is inclined mainly to the North East, whilst waves from the N.E. have planes inclined towards the N.W. These results

indicate that the inclination may be due, not to wave interference, but to the structure of the Earth crust. Figure 6 gives the directions of the major axes of elliptical configurations.
In the case of microseisms from the Black Sea, the angular limits within which the source lies are 180° apart, i.e. considerably greater than for Atlantic microseisms. An analysis of traces from five storms shows that about 5% of the oscillations can be considered as Rayleigh waves and Love waves are completely absent.
Figure 7 is analogous to Figure 3 and shows that the number of Rayleigh waves is very small and their direction of oscillation does not, in general, coincide with the direction of propagation of the wave. Figure 8 shows the directions of the microseism sources. (It should be noted that the second maximum in Figure 7 does not correspond to any real phenomenon.) It is of interest that although a quarter of the oscillations showed an elliptical form, only one-twentieth were Rayleigh waves. This explains the lack of correspondence between the orientation of major axes and the direction of the source. The greater complication of

The Structure of Microseisms SOV/49-58-8-1/17

the Black Sea oscillations as compared with those of the Atlantic can be explained not only by wave interference but also by the greater effect of inhomogeneities of the Earth crust on these shorter, period waves. (The former effect seems to be of more importance, however.) There are 12 references, 7 of which are English, 4 Soviet and 1 German, and 8 figures.

ASSOCIATION: Akademiya nauk SSSR Institut fiziki Zemli (Ac.Sc.USSR, Institute of Terrestrial Physics)

SUBMITTED: March 5, 1958

Card 9/9 1. Microseisms--Mathematical analysis

MONAKHOV, F.I.; PASECHNIK, I.P.; SHEBALIN, N.V.; PODOL'SKIY, A.D., red.; MAKUNI, Ye.V., tekhn.red.

[Seismic and microseismic observations at Soviet stations during the International Geophysical Year] Seismicheskie i mikroseismicheskie nabliudeniia na sovetskikh stantsiiakh v period MGG. Moskva, Izd-vo Akad.nauk SSSR, 1959. 37 p. (MIRA 12:7)

(International Geophysical Year, 1957-1958)
(Seismology--Observations)

23395
S/169/61/000/007/013/104
A006/A101

3.5000

AUTHOR: Monakhov, F.I.

TITLE: Conditions of the formation and propagation of North-Atlantic microseisms

PERIODICAL: Referativnyy zhurnal. Geofizika, no.7, 1961, 11, abstract 7A115 (V sb. "Seysm. i glyatsiol. issled. v period Mezhdunarodn. geofiz. goda", Moscow, AN SSSR, 1959, 39 - 57)

TEXT: The intensity of microseisms at the "Simferopol'" station during 1952 is compared with the intensity of cyclones. The ratio of their energies k, is the highest for cyclones at the Scandinavian coast; k = 0 for cyclones to the south of Greenland and Iceland. The author analyzes eight cases of increasing microseisms during 1957 - 1958 using observations of other stations. The microseisms are strongly decaying when propagating on the bottom of the Greenland and Norvegian seas and the North-Atlantic. The decay of North-Atlantic microseisms over the Eurasian continent depends strongly on the direction of their propagation. They propagate into the continent with least decay, and along its borders with maximum decay. Microseisms observed in Europe are originated near

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23395
S/169/61/000/007/013/104
A006/A101

Conditions of the formation ...

the European coast and mainly in Scandinavia. Swell at approaches to the European coast is able to produce microseisms. There is no noticeable increase in the microseismic periods at a distance from the source. The author considers that the microseismic method of tracing cyclones in the North-Atlantic can be applied merely to cyclones near the European coast.

T. Proskuryakova

[Abstracter's note: Complete translation]

Card 2/2

3.5000

28392
S/169/61/000/007/010/104
A006/A101

AUTHOR: Monakhov, F.I.

TITLE: Microseisms and their connection with cyclones over seas and oceans

PERIODICAL: Referativnyy zhurnal. Geofizika, no.7, 1961, 11, abstract 7A112 (V sb. "Seysmich. issled. no. 4", Moscow, AN SSSR", 1960, 78 - 104, English summary)

TEXT: A comparison was made of the amplitudes and periods of microseisms over various stations with locations and intensities of cyclones in the North-Atlantic region and the north-western part of the Pacific. Moreover, the orientations observed on the microseism sources were compared from data of a three-point station with orientation on cyclones. It was established that the best correlation of microseisms and cyclones occurs when the cyclones are active over a sea surface near the coast. The most favorable regions for the agitation of microseisms in the North Atlantic basin are the Norvegian and the Barents Sea. In the earth's crust of continental structure microseisms propagate at a velocity of 3.2-3.3 km/sec. Their propagation speed increases with their transition from the continent to the ocean.

F. Monakhov

[Abstracter's note: Complete translation]

Card 1/1

MONAKHOV, F.I.

Seismology in Yugoslavia. Izv. AN SSSR. Ser. geofiz. no.8:1227-1228 Ag '60. (MIRA 13:8)

(Yugoslavia--Seismology)

87969

S/049/60/000/010/005/014
E133/E414

3,9300

AUTHORS: Monakhov, F.I. and Dolbilkina, N.A.

TITLE: Microseism Structure and the Determination of the Direction to the Microseism Source

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1960, No.10, pp.1463-1465

TEXT: The present authors (Ref.2) and Strobach (Ref.3) have analysed microseisms, but obtained different results for their structure. Strobach has found 35% elliptically polarized oscillations and 65% linearly polarized, whilst the present authors found 15% and 1 to 2%, respectively. The differences appear to be due to the different geographical positions and apparatus. Both results indicated, however, that Rayleigh waves made up not more than a quarter of all the oscillations. Using new apparatus described in Ref.1 and 2, ten recordings of microseisms (each of duration one hour) were analysed. A table is given showing the azimuths of the waves (from the direction of Scandinavia).

X

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S/049/60/000/010/005/014
E133/E414

Microseism Structure and the Determination of the Direction to the Microseism Source

The width of the sector depends on the meteorological conditions over the sea off Norway - stronger winds giving sectors of greater angular width. Owing to the considerable width of some of the sectors, microseisms from the same storm can interfere with each other. A further table indicates the amount of interference which takes place. The more localized the region from which the microseisms come, the less the interference. The amount of interference present also depends on the wave intensity. The mean velocity of the microseisms was measured to be 3.3 ± 0.3 km/sec. It was found from a study of this interference effect that 61% of the microseismic waves were elliptically polarized, 4% were Love waves and the rest were unpolarized. This shows that microseismic interference increases the proportion of Rayleigh waves present. The use of Rayleigh waves to determine the direction to microseismic sources can lead to very large errors. There are 2 tables and 3 references: 2 Soviet and 1 non-Soviet.

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87969

S/049/60/000/010/005/014
E133/E414

Microseism Structure and the Determination of the Direction to the Microseism Source

ASSOCIATION: Akademiya nauk SSSR Institut fiziki Zemli (Academy of Sciences USSR Institute of Physics of the Earth)

SUBMITTED: April 23, 1960

Card 3/3

24217

S/049/61/000/003/002/005
D249/D301

3,9300

AUTHOR: Monakhov, F.I.

TITLE: Frequency selection of oceanic storm microseisms

PERIODICAL: Akademiya nauk SSSR. Seriya geofizicheskaya. Izvestiya, N. 3, 1961, 393-401

TEXT: The author reports a method for selection of microseisms produced by meteorological disturbances over oceans and recorded at stations situated on islands and continents. In recent years it was found that microseisms propagated along the ocean bed are attenuated much more strongly than along continents. This makes it difficult to use microseisms in studies of cyclones or storms occurring over the open ocean. The author describes a method which makes use of the fact that the periods of microseisms due to cyclones or storms are longer (7-8 sec) than the periods of microseisms during relatively quiet conditions. To reject all microseisms of periods other than 7-8 sec, a seismograph

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24227

Frequency selection of... S/049/61/000/003/002/005
D249/D301

amplifier must have a frequency characteristic with a peak at the storm microseism frequency $(\frac{1}{7} - \frac{1}{8}\ \sec^{-1})$. For this purpose the seismograph pendulum should be damped as little as possible and tuned to the period of 7-8 sec. by means of a multi-stage frequency selector whose circuit is shown in Fig. 1. This circuit was used for several months in 1959-60 to record microseisms in Murmansk, Vyborg, Serpukhov, Yuzhno-Sakhalinsk and Vladivostok. In Serpukhov the frequency selector had five stages; at all other stations the frequency selectors had only two stages. It was found that under steady-state conditions the two-stage circuit amplifies the 7-8 sec. microseisms by a factor of 25, compared with other microseisms, while the five-stage circuit gives an amplification factor of 2000-2500. Under field conditions, microseisms are not steady but consist of successive groups of waves. Laboratory tests with an МГПА(MGPA) oscillator showed that for such wave groups the relative amplification of the 7-8 sec. microseisms was only 3.4 in the case of the two-stage frequency selector and 15-20 for the five-stage selector. In Yuzhno-Sakhalinsk and Vladivostok observations were made simultaneously

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by means of standard seismographs and the frequency selectors described here. The results were as follows. On November 8-10, 1959, a cyclone passed over the Okhotsk Sea. A standard seismograph in Yuzhno-Sakhalinsk recorded storm microseisms which were represented by changes in amplitude and period (Fig. 4). In Vladivostok a standard seismograph showed only an increase in the microseism period. The frequency selectors located in Vladivostok and Yuzhno-Sakhalinsk recorded a sharp rise of the microseism intensity beginning from 00 hours on November 9. Similar results were recorded in Yuzhno-Sakhalinsk and Vladivostok for another cyclone on January 16, 1960, passing near Japan. The Yuzhno-Sakhalinsk and Vladivostok results indicated clearly that even the two-stage frequency selectors were more sensitive to storm microseisms than the standard seismographs, but the sensitivity and selectivity of the two-stage devices were insufficient to detect microseisms from cyclones far from the sea shore. More interesting results were obtained by using frequency selectors in Murmansk (two-stage), Vyborg (two-stage), Serpukhov (five-stage) and by a standard seismograph in Moscow. Fig. 8 shows the amplitudes of microseisms on December 22-27, 1959, recorded

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in Moscow, Murmansk, Vyborg and Serpukhov. During this period (on December 21) a cyclone with H = 965 mb was observed south of Greenland. During the next few days the cyclone moved towards Britain. Microseisms recorded at the four stations listed in Fig. 8 were not of the storm type. On December 25, another cyclone formed south of Iceland; it had H = 955 mb. This also moved toward the shores of Britain. Towards the end of December 24 the Serpukhov five-stage selector recorded n increase of microseism intensity which continued until December 27. ... ing the same period only small increases in microseism activity were recorded in Murmansk and Vyborg while in Moscow the standard seismograph recorded only microseisms with periods less than 5 sec and amplitudes less than 1 μ. All these results show that the technique of frequency selection in studies of storm microseisms is a promising one and that further improvements in the apparatus are needed. Among possible improvements is the use of electromechanical filters discussed by P.W. Pomeroy and G.H. Sutton (Ref. 3: Bull. Seism. Soc. Amer., 50, 1, 1960). Acknowledgements are made to O.A. Korchagina, N.A. Dolbilkina and V.I. Mamichev for their help in carrying out the observations and analyzing the results.

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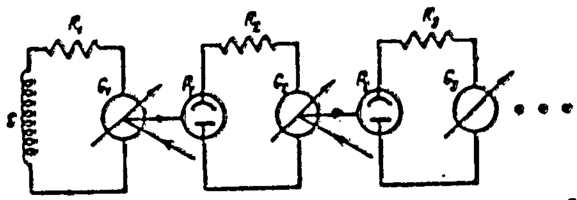
Frequency selection of...

There are 10 figures and 3 references: 1 Soviet-bloc, 2 non-Soviet-bloc. The references to the English-language publications read as follows: B. Gutenberg, and H. Benioff, An Investigation of Microseisms, Pasadena, 1956; P.W. Pomeroy and G.H. Sutton: Bull. Seism. Soc. Amer., 50, 1, 1960.

ASSOCIATION: Akademiya nauk SSSR, Institut fiziki zemli (Academy of Sciences, USSR, Institute of Physics of the Earth)

SUBMITTED: July 26, 1960

Fig. 1. The multi-stage frequency selector circuit. S is the seismograph; G_1, G_2 and G_3 are galvanometers; P_1 and P_2 are photocells.



Фиг. 1. Схема многокаскадной частотно-избирательной установки
S — сейсмограф; G_1 — G_3 — гальванометры; P_1 — P_2 — фотоэлементы

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Фиг. 4. Графики амплитуд и периодов микросейсм. Ноябрь 1959 г.

1 — Владивосток (общего типа); 2 — Южно-Сахалинск (общего типа); 3 — Владивосток (частотно-избирательная); 4 — Южно-Сахалинск (частотно-избирательная)

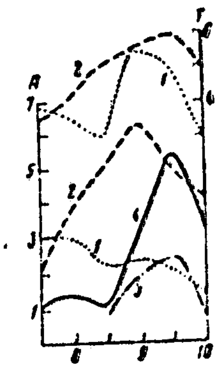
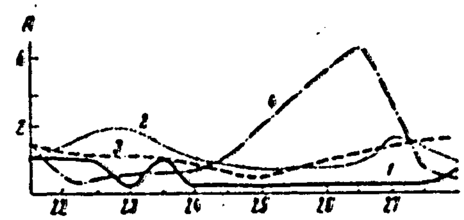


Fig. 4. Amplitudes and periods of microseisms in November 1959. 1) Vladivostok (standard seismograph); 2) Yuzhno-Sakhalinsk (standard seismograph); 3) Vladivostok (frequency selector); 4) Yuzhno-Sakhalinsk (frequency selector).

Fig. 8. Amplitudes and periods of microseisms.

Фиг. 8. Графики амплитуд микросейсм. Декабрь 1959 г.

1 — Москва; 2 — Мурманск; 3 — Выборг; 4 — Серпухов



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S/049/61/000/005/008/013
D207/D306

AUTHOR: Monakhov, F. I.

TITLE: Microseisms at the bottom of the Black Sea

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya geofizicheskaya, no. 5, 1961, 710-711

TEXT: The author reports and discusses microseisms due to sea waves, usually produced by cyclones. The microseisms were recorded at the bottom of the Black Sea in August and October, 1960, using an instrument designated as aДСУ (DSU). This instrument was developed at the Institut fiziki zemli, AN SSSR (Institute of Physics of the Earth, AS USSR). It is in the form of a metal spherical shell of 54 cm internal diameter, containing a vertical seismograph, a galvanometer and a recorder. The shell was lowered from a stationary or drifting ship. Microseisms of 2 sec period were simultaneously recorded at the bottom of the sea (70 km west of Sochi at a depth of 2080 m) and at two land stations (Sochi and Yalta). The microseisms recorded at the land stations were much

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Microseisms at the bottom ...

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D207/D306

weaker. The strong attenuation was ascribed to continental crust. There are 3 figures and 5 references: 3 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: B. Gutenberg, H. Benioff. An investigation of microseisms. California, Pasadena, 1956; D. Carder, R. Eppley. The microseismic program of the U.S. Navy. Washington, 1959.

ASSOCIATION: Akademiya nauk SSSR, Institut fiziki zemli (Institute of Physics of the Earth, AS USSR)

SUBMITTED: January 2, 1961

Card 2/2

KORCHAGINA, O.A.; MESHKOV, M.M.; MONAKHOV, F.I.

Frequency selection of oceanic storm microseisms. Izv. AN SSSR. Ser. geofiz. no.6:771-775 Je '62. (MIRA 15:6)

1. Akademiya nauk SSSR, Institut fiziki Zemli.
(Microseisms)

MONAKHOV, F.I.

Microseisms at the bottom of the Baltic Sea and in the northern part of the Atlantic Ocean. Izv. AN SSSR. Ser. geofiz. no.7: 895-907 Jl '62. (MIRA 15:7)

1. Institut fiziki Zemli, AN SSSR.
(Baltic Sea--Microseisms) (Atlantic Ocean--Microseisms)

S/0169/64/000/001/G015/G015

ACCESSION NR: AR4020760

SOURCE: RZh. Geofizika, Abs. 1G122

AUTHORS: Monakhov, F. I.; Korchagina, O. A.

TITLE: Conditions of formation and propagation of microseisms in the northwestern part of the Pacific Ocean

CITED SOURCE: Sb. Seysmol. issledovaniya. No. 5. M., AN SSSR, 1963, 39-51

TOPIC TAGS: Microseism formation, microseism propagation, cyclone energy, storm microseism

TRANSLATION: The apparatus and techniques employed in observations of microseisms in the northwestern part of the Pacific Ocean during the IGY are described. The observations were made at three special microseismic stations and several ordinary seismic stations. A study of the directions of incoming microseisms and a comparison of their energy with the energy of cyclones lead to the conclusion that storm microseisms recorded by seismic stations are formed in inshore zones. No reinforcement of microseisms is observed when

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ACCESSION NR: AR4020760

cyclones act on open areas of the ocean; this is due to the considerable damping of the microseisms in the course of their propagation along the ocean bottom. In the region of Yuzhno-Sakhalinsk, the existence of anomalies was revealed by the values of the phase velocities and directions of incoming microseismic tremors. O. Korchagina

DATE ACQ: 03Mar64 SUB CODE: AS ENCL: 00

Card 2/2

MONAKHOV, F.I.

Use of long-period microseisms for obtaining information about oceanic storms. Dokl. AN SSSR 153 no.2:321-322 N '63. (MIRA 16:12)

1. Institut fiziki Zemli im. O.Yu.Shmidta AN SSSR. Predstavleno akademikom V.V.Shuleykinym.

MONAKHOV, G.A.

USSR/Engineering

Card 1/1 Pub. 103 - 3/23

Authors : Chernikov, S. S.; Monakhov, G. A.; and Ogaev, N. N.

Title : Multiple-disc electromagnetic clutch

Periodical : Stan. i instr. 2, 6-7, Feb 1954

Abstract : The advantages and deficiencies of multiple disc electromagnetic clutches used in various industrial machines, are discussed. The effect of the lubrication viscosity on the wear of the coupling is explained. The structural components and mechanical properties of multiple disc electromagnetic couplings are described. Drawing.

Institution : .....

Submitted : .....

MONAKHOV, G. A.

MONAKHOV, G. A. -- "Investigation of the Influences of the Elements of Profile Milling Machines Equipped with an Electro-Contact System on the Error of Their Work." Min Higher Education USSR, Moscow Machine Tool Instrument Inst imeni I. V. Stalin, Moscow, 1955 (Dissertation For the Degree of Doctor of Technical Sciences)

SO: Knizhnaya Letopis', No. 37, 3 September 1955

BOLTUKHIN, A.K.; STERLIN, S.Z.; MUSHTAYEV, A.F.; MOROZOV, I.I.; KUDINOV, V.A.; ~~MONAKHOV, G.A.; AZAREVICH, G.M.~~; LAPIDUS, A.S.; PROKOPOVICH, A.Ye., redaktor; RZHAVINSKIY, V.V., redaktor izdatel'stva; TIKHANOV, A.Ya., tekhnicheskiy redaktor

[Modernization of knee and column type milling machines; instructions] Modernizatsiia konsol'no-frezernykh stankov; rukovodiashchie materialy. Pod red. A.E.Prokopovicha. Moskva, Gos. nauchno-tekhn.izd-vo mashino-stroit.lit-ry, 1957. 194 p. (MLRA 10:8)

1. Moscow. Eksperimental'nyy nauchno-issledovatel'skiy institut metallorezhushchikh stankov
(Milling machines)

MONAKHOV, G.A.

The 6M42P program-controlled contour milling machine. Biul.tekh.-ekon.inform. no.10:24-26 '58. (MIRA 11:12)
(Milling machine--Numerical control)